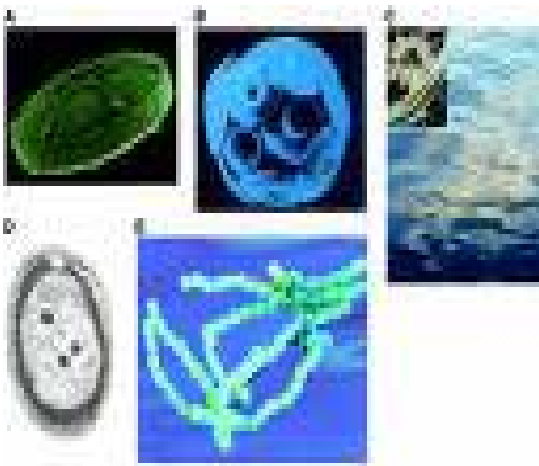


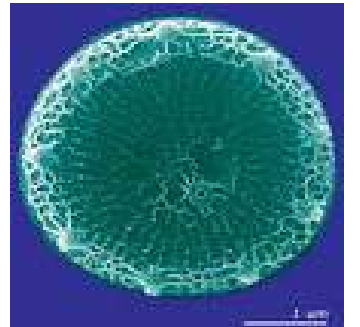
THE MARINE ECOSYSTEM & ITS “BIOLOGICAL PUMP” OF CARBON

“Marine plankton carry out 45% of the total oxygen respiration on earth.”



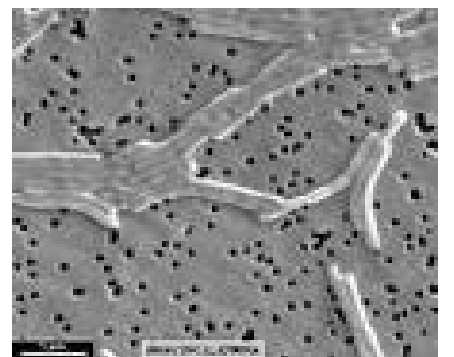
Carbon dioxide is removed from the atmosphere by producers: plants like algae and phytoplankton that use CO_2 , sunlight and nutrients to make food through the process of **PHOTOSYNTHESIS**.

Some CO_2 is then released back into the atmosphere through **RESPIRATION** as the phytoplankton break down their food to create energy.



Some of the CO_2 is passed on in the **FOOD CHAIN** to primary consumers: zooplankton and other filter feeders that depend on phytoplankton for their energy.

Bacteria play a vital role in the biological pump by **DECOMPOSING** organic particles such as waste products and dead organisms that sink to the deep sea.



Respiration, consumption and decomposition continue to transport carbon through **HIGHER TROPHIC LEVELS** or trap it in **CALCIFIED** shells, reefs and limestone structures.

As bacteria breakdown organic matter, CO_2 is **REMINERALIZED** and stored in the deep ocean sediments.

